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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/416,501	10/08/99	DOYLE B	42390.P4514D

MMC1/0620

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EXAMINER	
ORTIZ,E	
ART UNIT	**PAPER NUMBER**
2815	

DATE MAILED: 06/20/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)

1- File Copy

Office Action Summary

Application No.	Applicant(s)
09/416,501	Doyle
Examiner	**Group Art Unit**
Edgardo Ortiz	2815

☒ Responsive to communication(s) filed on *Apr 14, 2000*.

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *14 and 17-22* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *14 and 17-22* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

This Office Action is in response to an amendment filed April 14, 2000 on which Claims 14, 20 and 21 were amended and new Claim 22 was added.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 20 and 21 are rejected 102 (e) as being anticipated by Horiba (U.S. Patent No. 5,744,866). With regard to claim 20, Horiba teaches a substrate (1) having a first oxide film (2), a conductive layer (4) formed over the first oxide film, a second oxide film (5) and a semiconductor film (6) formed over the second oxide film (5) and having at least one active device. See column 5, lines 6-35. Claim 20 contains intended use limitations with regard to the oxide film. See In re Pearson 181 USPQ 641 (CCPA) which makes clear that terms merely setting forth intended use for, or a property inherent in, an otherwise old composition do not differentiate claimed composition from those known to prior art. See also, In re Swinehart [169 USPQ 226] (CCPA 1971) which makes clear that mere recitation of a newly discovered function or property, inherently possessed by things in prior art, does not cause claim drawn to those things to distinguish over prior art.

With regard to Claim 21, Hiroba teaches a conductive layer which can be made of a refractory metal, such as Tungsten, which is a noble metal. See column 5, lines 56-59.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 14 and 17-22 are rejected under U.S.C. 103(a) as being unpatentable over Horiba (U.S. Patent No. 5,744,866). Horiba discloses a low resistance ground wiring in a semiconductor device. With regard to claims 14 and 21, Horiba teaches a substrate (1) having a semiconductor film (comprised or 2 and 3) and a conductive layer (4) which is bonded to the semiconductor film formed on the substrate (1). It would have been obvious to someone with ordinary skill in the art to provide an active device over semiconductor film as it is a common practice and principle on the fabrication of semiconductors.

With regard to Claim 16, A "product by process" claim is directed to the product per se, no matter how actually made, In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209

USPQ 554 does not deal with this issue); In re Marosi et al, 218 USPQ 289; and particularly In re Thorpe, 227 USPQ 964, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that applicant has the burden of proof in such cases, as the above case law makes clear.

With regard to Claim 17, Hiroba teaches a conductive layer which can be made of a refractory metal, such as Tungsten, which is s noble metal. See column 5, lines 56-59.
With regard to Claim 18, Horiba teaches a semiconductor film which has an oxide film (20). See column 5, lines 13-17.

With regard to Claim 19, Horiba teaches a conductive film, which can include a refractory metal, formed on a oxide film (3). See column 5, lines 13-17.

With regard to Claim 22, Horiba teaches transistors in the Z-dimension. It would have been obvious to someone with ordinary skill in the art to have included transistors in the Z- dimension, as it is not consequential to the functioning of the semiconductor structure as proposed by the applicant.

Response to Arguments

3. Applicant's arguments filed April 14, 1999 have been fully considered but they are not persuasive. Applicant's state in remarks that amended Claims 14 and 20, in which limitations have been added, render the claims allowable over the prior art. In support, Applicant's point out that the devices disclosed by do not teach the features, locations or the concept of an oxide film that debonds a metal film from a substrate or a damaged surface which demarcates a semiconductor film. However, these are intermediary steps that do not distinguish the final structures to those which are cited on the references provided and that are known in the semiconductor art. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference, nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Edgardo Ortiz (Art Unit 2815), whose telephone number is (703) 308-6183. Any inquiry of a general nature or relating to the status of this application should be directed to the Group 2800 receptionist whose telephone number is (703) 308-0956.

EO/AU 2815

6/19/99

DAVID HARDY
PRIMARY EXAMINER